

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



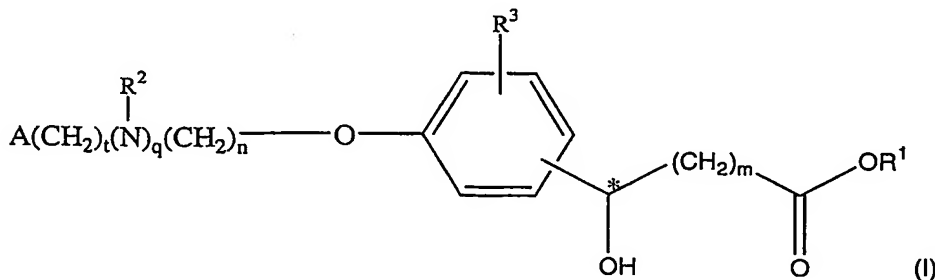
(43) International Publication Date
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number
WO 2004/091486 A2

- (51) International Patent Classification⁷: **A61K**
- (21) International Application Number:
PCT/US2004/010799
- (22) International Filing Date: 8 April 2004 (08.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/462,960 15 April 2003 (15.04.2003) US
- (71) Applicant (for all designated States except US): **WELL-STAT THERAPEUTICS CORPORATION [US/US];**
930 Clopper Road, Gaithersburg, MD 20878 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HODGE, Kirvin, L.** [US/US]; 8115 Mississippi Road, Laurel, MD 20724 (US). **SHARMA, Shalini** [US/US]; 211 Bristol Down Drive, Gaithersburg, MD 20878 (US). **VON BORSTEL, Reid, W.** [US/US]; 8310 Fox Run, Potomac, MD 20854 (US). **WOLPE, Stephen, D.** [US/US]; 18301 Clear Smoke Road, Boyds, MD 20841 (US).
- (74) Agent: **KREISLER, Lewis, J.**; Legal Department, 930 Clopper Road, Gaithersburg, MD 20878 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOUNDS FOR THE TREATMENT OF METABOLIC DISORDERS



(57) **Abstract:** Agents useful for the treatment of various metabolic disorders, such as insulin resistance syndrome, diabetes, hyperlipidemia, fatty liver disease, cachexia, obesity, atherosclerosis and arteriosclerosis are disclosed. Wherein n is 1 or 2; m is 0, 1, 2, 3 or 4; q is 0 or 1; t is 0 or 1; R^2 is alkyl having from 1 to 3 carbon atoms; R^3 is hydrogen, halo, alkyl having from 1 to 3 carbon atoms, or alkoxy having from 1 to 3 carbon atoms; A is phenyl, unsubstituted or substituted by 1 or 2 groups selected from: halo, alkyl having 1 or 2 carbon atoms, perfluoromethyl, alkoxy having 1 or 2 carbon atoms, and perfluoromethoxy; or cycloalkyl having from 3 to 6 ring carbon atoms wherein the cycloalkyl is unsubstituted or one or two ring carbons are independently mono-substituted by methyl or ethyl; or a 5 or 6 membered heteroaromatic ring having 1 or 2 ring heteroatoms selected from N, S and O and the heteroaromatic ring is covalently bound to the remainder of the compound of formula I by a ring carbon; and R^1 is hydrogen or alkyl having 1 or 2 carbon atoms, provided that when m is 0 or 1, R^1 is not hydrogen. Alternatively, when R^1 is hydrogen, the biologically active agent can be a pharmaceutically acceptable salt of the compound of Formula I.